



Although it comes in fast, the Trent-Meteor is no trouble on the approach and landing. The undercarriage legs are longer than standard to give airscrew tip clearance.

"Flight" photograph.

TRENT METEOR "In the Air"

First Experience of Airscrew-Turbines : Pitch and Jet-Pipe Temperature Control for Economy

By Wing Cdr. MAURICE A. SMITH, D.F.C.

FOR many months past the Rolls-Royce flight development section has been studying control problems in connection with airscrew-turbines, using two Trent engines in a Meteor. W/C. McDowell, who must certainly have more hours' experience with this type of unit than any other man, has done most of the flying. The development programme has now been completed with these engines, and pilots from Boscombe, Farnborough and other establishments have been invited to fly the aircraft before it is dismantled. Recently *Flight* also took the opportunity to fly it in order to record impressions of the handling of the Trents, and of flying in a "propjet" aircraft. It is not the intention to describe the handling characteristics of the aircraft except in so far as they are related to the engines. The Meteor airframe is an old Mk. I with hinged cockpit enclosure and long undercarriage to give airscrew tip clearance, and the Trents are purely development units comprising pure-jet Derwent IIs to which have been fitted shafts and reduction gearing in order that a proportion of the power may be absorbed in airscrew thrust. Power output is made up from 750 s.h.p. and 1,000 lb thrust. As a result of modifications, the Trent-Meteor is heavier than any of the standard marks.

Reference has already been made

to the engines, and to the early difficulties experienced in controlling them (*Flight* dated June 24th, 1947). Summarizing briefly, the aim has been to produce satisfactory single-lever control for airscrew turbines, i.e., fuel pressure, and appropriate airscrew pitch must be selected automatically according to the setting of a single "throttle" lever. Some mention of the parallel problems on the Armstrong Siddeley Mamba is made on pages g and h in the centre pages of this issue.



Preparing to take off in the old Mk. I Meteor. Its Rolls-Royce Trents are basically Derwent IIs with reduction gears and airscrew shafts.

"Flight" photograph.